October 4th, 2021 Zoom Meeting 2:00 P.M. - 3:00 P.M.

Prof. Gechun Liang (University of Warwick, UK)

On the convergence rate of limit theorems under sublinear expectation

Abstract: We propose a monotone approximation scheme for two fully nonlinear PDEs. The first equation is Peng's G-equation for characterizing G-distribution under sublinear expectation, and the second one is a fully nonlinear partial integro-differential equation for characterizing nonlinear alphastable distribution. We establish explicit error bounds for the approximation scheme by using and extending techniques introduced by Krylov and Barles-Jakobsen. As an application, we obtain the convergence rate of Peng's robust central limit theorem and Bayraktar-Munk'a generalized central limit theorem for alpha-stable random variables under sublinear expectation.

Zoom link:

Topic: Math Finance Colloquium (USC)

Time: Oct 4, 2021 02:00 PM Pacific Time (US and Canada)

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